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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/770,939	01/25/2001	Michael B. Wittig	5366P002	8213

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EXAMINER

NGUYEN, HANH N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/770,939

Applicant(s)

WITTIG, MICHAEL B.

Examiner

Nguyen N Hanh

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 08 September 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

Remarks

1. In view of amendments, the Examiner withdraws the objections to the drawing and the specification. The cancellation of claims 1-13 made the rejection under 35 U.S.C 112, second paragraph, the rejections under 35 U.S.C 102 (b) and under 35 U.S.C 103(a) to claims 1-13 in moot.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 14-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 14 and 19, The phrase " at least two circular arrangement" (or at least two rows as in claim 19) is understood as positively and definitely reciting two (2) circular arrangements (or two rows) of magnetic components and possibly there may be three or more circular arrangements (or rows) of magnetic components therein. However, the interpretation of three or more circular arrangements (or rows) is simply a possibility which makes the recitation indefinite.

The phrase "at least two electrical path" as in claims 14 and 19 also makes the recitation indefinite.

The phrases "at least one electrical circuit element", "at least one bearing" also make the recitations indefinite.

There is no antecedent basis for " the first arrangement", "the second arrangement", "the majority of magnetic field lines", "the first gap", "each gap", "the electrical circuit element", "the first path", "the second path" and "the axis" as in claim 14.

There is no antecedent basis for " the first row", "the second row", "the majority of magnetic field lines", "the first gap", "each gap", "the electrical circuit element", "the first path", "the second path" and "the axis" as in claim 19.

Claims 15-18 are dependent claims of claims 14 and claims 20-23 depend on claim 19.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States

3. Claims 14,16-19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Goldie et al.

Regarding claim 14, Goldie et al. disclose an electric motor comprising: a first body (32 in Fig. 1); a plurality of magnetic components (74 in Fig. 2) secured to the first body and located in at least two circular arrangements (20,22,24,26 in Fig. 1) having a common axis and magnetic field lines forming across a gap from each magnetic component of the first arrangement to each magnetic component of the second arrangement (Fig. 1 and 4), having the majority of magnetic field lines pass through

substantially nonmagnetic material (air) across the first gap; at least one electrical circuit element located in each gap (84 in Fig. 3), the electrical circuit element being pierced by the magnetic field lines and having two faces substantially parallel to each other and perpendicular to the axis (Fig. 5 and 6); at least one bearing (58) securing the electrical circuit element to the first body to allow the electrical circuit element to rotate along the axis of the bearing relative to the first body; and at least two electrical paths (84 and 86 in Fig. 3) of each electrical circuit element, the first path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the axis, the second path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the axis.

Regarding claim 19, Goldie et al. disclose an electric motor comprising: a first body (32 in Fig. 1); a plurality of magnetic components (74 in Fig. 2) secured to the first body and located in at least two rows (20,22,24,26 in Fig. 1) substantially parallel to each other and magnetic field lines forming across a gap from each magnetic component of the first row to each magnetic component of the second row (Fig. 1 and 4), having the majority of magnetic field lines pass through substantially nonmagnetic material (air) across the first gap; at least one electrical circuit element (84 in Fig. 3) located in each gap, the electrical circuit element being pierced by the magnetic field lines and having two faces substantially parallel to each other and perpendicular to the magnetic field lines (Fig. 5 and 6); at least one bearing (58) securing the electrical circuit element to the first body to allow the electrical circuit element to move relative to the first

body; and at least two electrical paths (84 and 86 in Fig. 3) of each electrical circuit element, the first path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the axis, the second path having a section located in the gap and extending transverse to the magnetic field lines so that a current therein causes rotation thereof about the axis.

Regarding claims 16 and 21, Goldie et al. disclose an electric motor wherein the magnetic components are permanent magnets (Fig. 5 and Col. 8, line 50).

Regarding claims 17 and 22, Goldie et al. disclose an electric motor wherein the magnetic components are electromagnets (Fig. 3 and Col. 8, lines 20-35).

Regarding claims 18 and 23, Goldie et al. disclose an electric motor wherein the magnetic components are secured to the first body (32), the first body being secured to a force reflection device (intended use, patentable weight not given).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldie et al. in view of Miyao et al.

Regarding claims 15 and 20, Goldie et al. show all limitations of the claimed invention except showing the electrical circuit element is a printed circuit board.

However, Miyao et al. disclose an electric machine wherein the electrical circuit element (2 in Fig. 2) is a printed circuit board for the purpose of creating magnetic flux.

Since Goldie et al. and Miyao et al. are in the same field of endeavor, the purpose disclosed by Miyao et al. would have been recognized in the pertinent art of Goldie et al.

It would have been obvious at the time the invention was made to a person having an ordinary skill in the art to modify Goldie by using a printed circuit board to form a armature for the electrical machine as taught by Miyao et al. for the purpose of creating magnetic flux.

Conclusion


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh N Nguyen whose telephone number is (703) 305-3466. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner 's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

HNN

November 3, 2003


BURTON S. MULLINS
PRIMARY EXAMINER